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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/462,172	03/31/2000	HANNU HAKALAHTI	02849.0115	4754

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FINNEGAN HENDERSON FARABOW
GARRETT DUNNER
1300 I STREET NW
WASHINGTON, DC 20005

EXAMINER

NGUYEN, BRIAN D

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 05/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/462,172

Applicant(s)

HAKALAHTI ET AL.

Examiner

Brian D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the application filed 3/31/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Finland on 04 July 1997. It is noted, however, that applicant has not filed a certified copy of the 972868 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

2. The information disclosure statement filed 3/31/2000 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Specification

3. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Objections

4. Claims 10 and 14-26 are objected to because of the following informalities:
Claim 10, line 2, "which in" should be changed to ---in which---.

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Claim 14, line 7, "one or more terminals" seems to refer back to "one or more terminals" recited in lines 2-3. If this is true, it is suggested to change "one or more terminals" to ---the one or more terminals---.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 4, 5, 13, 14, 17, 18, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 14, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 4 recites the limitation "the ATM switches" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the ATM switches" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "the units" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the ATM switches" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the ATM switches" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 26 recites the limitation "the units" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1, 6, 8-11, 13-14, 19, 21-24, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Chung et al (6,359,871).

Regarding claim 1, Chung discloses a data transmission method for enclosed environments, such as a mine (see abstract), the data transmission method being used in a data transmission system comprising one or more terminals (17 of figure 1) and a network comprising

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at least one base station (13), a monitoring station (15) and a backbone network, the data transmission system having a radio connection between the terminal and the base station and a bi-directional connection from the monitoring station to one or more working machines (see col. 1, lines 38-41) via the terminals, each of which are coupled to a working machine, characterized in that data between the monitoring station and the terminal is transmitted digitally (see col. 2, lines 36-39), and one or more working machines are controlled from the monitoring station (see col. 1, lines 38-41) by teleoperation substantially in real time (see col. 7, lines 57-60) by a deterministic data transmission protocol in which the data transmission delay is within predetermined limits.

Regarding claim 6, Chung discloses transmitted messages are forwarded to all units connected to the network (broadcasting) (see col. 23, lines 33-40).

Regarding claims 8-10, Chung discloses the information types include image, voice, data and are transmitted in packets (see col. 2, lines 29-39).

Regarding claim 11, Chung discloses data compression (see col. 2, lines 36-39).

Regarding claim 13, Chung discloses a graphical user interface (display) (see col. 28, lines 46).

Regarding claims 14, 19, 21-24, and 26, claims 14, 19, 21-24, and 26 are system claims that have substantially all the limitations of the respective method claims 1, 6, 8-11, and 13, thus is subject to the same rejection.

Claim Rejections - 35 USC § 103

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9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2-3, 5, 7, 15-16, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (6,359,871) in view of Ota (6,034,966).

Regarding claim 2, Chung does not disclose the multicasting. However, Ota discloses the multicasting (see col. 1, lines 64-66). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to multicast messages as taught by Ota in the system of Chung with the motivation being to forward the messages to multiple destinations.

Regarding claims 3 and 5, Chung does not disclose an ATM network and centralized control. However, Ota discloses an ATM network with the centralized control (see abstract and col. 6, lines 35-37). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the ATM network as taught by Ota in the system of Chung with the motivation being to select the best well known communication method, such as the ATM method, for the system based on how the design is used.

Regarding claim 7, Chung does not disclose the use of spread spectrum signaling. However, Ota discloses the use of spread spectrum signaling (see col. 9, lines 4-7). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the spread spectrum as taught by Ota in the system of Chung with the motivation being to increase the number of channels available to the system.

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Regarding claims 15-16, 18, and 20, claim 15-16, 18, and 20 are system claims that have substantially all the limitations of the respective method claims 2-3, 5, and 7. Thus is subject to the same rejection.

11. Claims 3-4 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (6,359,871) in view of Green et al (5,687,324).

Regarding claims 3-4, Chung does not specifically disclose the ATM network operates on the multicasting principle by the ATM switches operating independently without control. However, Green discloses an ATM network that operates on the multicasting principle by the ATM switches operating independently without control (see abstract and col. 3, lines 56-60). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to operate on the multicasting principle by the ATM switches operating independently without control as taught by Green in the system of Chung with the motivation being to select the best method, from a plurality of well known methods, based on how the design is used.

Regarding claims 16-17, claim 16-17 are system claims that have substantially all the limitations of the respective method claims 3-4. Thus is subject to the same rejection.

12. Claims 11-12 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (6,359,871) in view of Astrin (6,026,082).

Regarding claims 11-12, Chung does not specifically disclose dynamic compression. However, Astrin discloses the dynamic compression (see col. 2, lines 34-42). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the dynamic compression method as taught by Astrin in the system of Chung with the

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motivation being to maintain the transmission quality in addition to effectively use of the system bandwidth.

Regarding claims 24-25, claims 24-25 are system claims that have substantially all the limitations of the respective method claims 11-12. Thus is subject to the same rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Purchase et al (5,432,838), Chalmers et al (5,504,809), Ormanns et al (4,495,495), and Fournier et al (5,850,341) are all cited to show a data transmission method for enclosed environments, such as a mine, which are considered pertinent to the claimed invention.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Nguyen whose telephone number is (703) 305-5133. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Olms can be reached on (703) 305-4703. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

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BN

May 20, 2003

A handwritten signature in black ink, appearing to read 'Brian Nguyen', with a stylized, flowing script.

Brian Nguyen